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Respectfully submitted,

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Limited Recognition Under 37 CFR §10.9(b)

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Appendix A - Claims Pending After Entrance of Present Amendment

1. A method of patterning a surface, comprising:

providing a stamp having a stamping surface;

disposing a substrate proximate to the stamping surface;

modulating the dimensions of the stamp to place the stamping surface in contact with the substrate.

- 2. The method of claim 1, further comprising modulating the dimensions of the stamp before the step of disposing the substrate.
- 3. The method of claim 1, further comprising, after the step of modulating the dimensions of the stamp to place the stamping surface in contact with the substrate, modulating the dimensions of the stamp to facilitate removal of the stamping surface from the substrate.
- 4. The method of claim 1, wherein the step of modulating the dimensions comprises a member of the group consisting of applying a mechanical stress, applying an electrical stimulus, removing a mechanical stress, removing an electrical stimulus, creating a partial vacuum, venting a vacuum, applying a magnetic field, removing a magnetic field, and any combination of the above.
- 5. The method of claim 4, wherein the mechanical stress comprises a positive hoop stress, a negative hoop stress, or a hydrostatic stress.
- 6. The method of claim 1, wherein the entirety of the stamp is modulated at the same time.
- 7. The method of claim 1, wherein at least one of the stamping surface and a surface of the substrate exhibits convexity in at least one dimension, and said convexity does not result from a surface texture or pattern.



- 8. The method of claim 1, further comprising exposing the substrate to electromagnetic radiation by transmitting said radiation through the stamp, wherein a portion of the stamp is opaque to said radiation.
- 9. The method of claim 1, further comprising disposing a transferable material on the stamping surface, wherein, when the stamp is in contact with the substrate, the transferable material is transferred to the substrate in a pattern corresponding to the pattern on the stamping surface.
- 10. The method of claim 9, wherein the transferable material comprises a member of the group consisting of a self-assembled monolayer forming molecule, a protein, an amino acid sequence, a synthetic peptide, a simple carbohydrate, a nucleic acid sequence, a lipid, a complex carbohydrate, an organic molecule, a polymer precursor, an inorganic molecule, an organometallic complex, a metal, a metallic species in a solvent, a metal colloid in a solvent, biological particles suspended in a carrier, and non-biological particles suspended in a carrier, an electroless plating precursor, and any combination of the above.
- 11. The method of claim 1, wherein the stamping surface comprises a pattern comprising at least one channel defined by raised portions on the surface of the stamp.
- 12. The method of claim 11, wherein a cross section of the stamp includes two raised portions, and wherein an angular distance between the two raised portions is between 0° and 180°.
- 13. The method of claim 11, wherein a lateral dimension of a channel or a raised portion is 100 nm or greater.
- 14. The method of claim 11, further comprising:

 placing the channel in fluidic communication with a fluid source; and

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causing a fluid to flow from the fluid source through a path bounded by the raised portions and the substrate.

- 15. The method of claim 14, wherein the fluid comprises a member of the group consisting of an etchant, a polymer precursor, a sol-gel fluid, a metal colloid in a solvent, cells suspended in a medium, a metallic species in a solvent, a metal, an electroplating solution, an electroless plating solution, a reactive gas, and any combination of the above.
- 16. The method of claim 14, wherein the fluid comprises a solution comprising a member of the group consisting of a self-assembled monolayer forming molecule, a protein, an amino acid sequence, a synthetic peptide, a simple carbohydrate, a nucleic acid sequence, a lipid, a complex carbohydrate, an organic molecule, a polymer precursor, an inorganic molecule, an electroless plating precursor, an organometallic complex, a metallic species, cells in a medium, and any combination of the above.
- 17. The method of claim 14, further comprising adjusting the temperature of the fluid while it is in the channel.
- 18. The method of claim 14, further comprising exposing the fluid in the channel to an electric current, a magnetic field, or electromagnetic radiation.
- 19. The method of claim 14, further comprising exposing the fluid to ultraviolet light.
- 20. The method of claim 14, further comprising adjusting the temperature of the substrate while the fluid is in the channel.
- 21. The method of claim 14, wherein a lateral dimension of a channel or raised portion is 200 nm or greater.

- 22. The method of claim 14, further comprising disposing a material on the substrate before the step of causing, wherein a component of the fluid interacts with the material when it is disposed in the channel.
- 23. The method of claim 14, wherein the fluid comprises a carrier and a material dissolved or suspended in the carrier, wherein the method further comprises allowing the carrier to dissipate and the material to harden.
- 24. The method of claim 11, further comprising wetting the stamping surface with a fluid, wherein, when the stamping surface is in contact with the area to be patterned, an interaction of the substrate with the fluid causes the substrate to develop a surface texture in a pattern conforming to the stamping surface of the stamp.
- 25. The method of claim 24, wherein the fluid dissolves or swells the substrate.
- 26. The method of claim 24, wherein the substrate comprises a polymer.
- 27. The method of claim 1, further comprising:

 removing the stamp from the substrate; and
 placing at least a portion of a second stamp against the substrate.
- 28. The method of claim 27, further comprising, before the placing step of claim 27, disposing the substrate in a specific position with respect to the second stamp.
- 29. The method of claim 28, wherein the step of disposing comprises positioning the substrate with a micrometer stage, optically setting a mark on the substrate with respect to the stamp, or aligning a mark on the substrate with a laser.
- 30. The method of claim 1, wherein the substrate comprises a metallic material, a semiconductor material, a ceramic, or a polymer.

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- 31. The method of claim 30, wherein the substrate comprises a coating comprising a metallic material, a semiconductor material, a ceramic, a glass, or a polymer.
- 32. The method of claim 1, further comprising disposing a material on the substrate before the step of placing.
- 33. The method of claim 1, wherein the stamp comprises a lumen having a portal providing communication between the lumen and an exterior of the stamp.
- 34. The method of claim 33, wherein walls of the stamp defining the lumen are characterized by flat, curved, or a combination of both.
- 35. The method of claim 33, wherein the stamp comprises a tube or balloon.
- 36. The method of claim 33, wherein the stamp has a diameter of at least 100 micrometers.
- 37. The method of claim 1, wherein the stamp and the substrate have the same or different shapes.
- 38. The method of claim 37, wherein the stamp is adapted and constructed to contact a substrate having a surface selected from open, partially closed, and closed.
- 71. A deformable stamp having a textured surface,

wherein the stamp is arranged and constructed to adopt at least two conformations, wherein

in the first conformation, a substrate can be placed proximate to the stamp, and

in the second conformation, a textured surface on the stamp is in contact with the substrate.

- 72. The stamp of claim 71, wherein the stamp comprises an elastomer.
- 73. The stamp of claim 72, wherein the stamp comprises a member of poly(dimethylsiloxane), poly(butadiene), poly (acrylamide), poly(butylstyrene), a chlorosilane polymer, an epoxy polymer, a diglycidyl ether of bisphenol A, a polymer having an aminated aromatic backbone, a polymer having a triazine backbone, a polymer having a cycloaliphatic backbone, a co- or block-polymer of any of the above, and any combination of the above.
- 74. The method of claim 71, wherein the textured surface comprises at least one channel defined by a raised portion of the stamp.
- 75. The stamp of claim 74, wherein the at least one channel and the raised portions each define a pattern characterized by a member of continuous, discontinuous, or a combination of both.
- 76. The method of claim 74, wherein a lateral dimension of a channel or a raised portion is 100 nm or greater.
- 77. The stamp of claim 71, wherein the stamp exhibits convexity in at least one dimension, and said convexity does not result from a surface texture or pattern.
- 78. The stamp of claim 71, wherein the stamp comprises a lumen having a portal providing communication between the lumen and an exterior of the stamp.
- 79. The stamp of claim 78, wherein walls of the stamp defining the lumen are characterized by flat, curved, or a combination of both.
- 80. The stamp of claim 78, wherein the stamp comprises one or two portals.

- 81. The method of claim 78, wherein a cross section of the stamp includes two raised portions, and wherein an angular distance between the two raised portions is between 0° and 180°.
- 82. The method of claim 78, wherein the lumen has a diameter of at least 100 μ m.
- 83. The stamp of claim 71, further comprising an interior and an exterior surface, wherein the exterior surface comprises the textured surface, the interior surface comprises the textured surface, or both of the above.
- 84. The stamp of claim 71, wherein the substrate and the stamp have the same or different shapes.
- 85. The stamp of claim 71, wherein the stamp is adapted and constructed to conform to a substrate having a shape selected from the group consisting of at least partially closed, open, multiplanar, and non-planar.

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